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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/733,820

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John Charles Calhoun

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EXAMINER

BERHANU, SAMUEL

ART UNIT

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2838

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/733,820	Applicant(s) CALHOON ET AL.	
	Examiner Samuel Berhanu	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9, 12-20 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9, 12-20 and 28-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 32 is objected to because of the following informalities:
2. Claim 32 recites the limitation "the communication" in line 9. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required
3. Claim 28 recites the limitation "the inductive data communication" in line 2. There is insufficient antecedent basis for this limitation in the claim. Examiner considered that meant to say "communication". Appropriate correction is required

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 32-35 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parks et. al. (US 5,455,466) (hereinafter Parks) in view of Garcia et al. (US 5,963,012) (hereinafter Garcia).

Regarding Claim 32, Parks discloses in Figures 12 an energy transfer apparatus, comprising: a power pickup coil (200b) for receiving inductive energy from an inductive power source and for transmitting power to a power supply (222, a rectifier circuit); the power supply for receiving power from the power pickup coil and for transmitting power to an electrical load (224), and operatively connected to a processor unit (228)

Art Unit: 2838

the electrical load for receiving power from the power supply and operatively connected to the processor unit (noted that all elements are operatively connected each other); the processor unit for processing computer readable data, and operatively connected to the power supply, the electrical load, and the communications unit (220) ; a memory (the process or has a memory it is inherent) for storing computer readable data relevant to receiving power from an inductive energy source, and operatively connected to the processor unit, and, the communications unit operatively connected to the processor unit. Parks does not disclose explicitly, wherein the communications unit includes circuitry for receiving a polling message from an inductive energy source and for transmitting a request for power message to the inductive energy source. Garcia discloses the communications unit includes circuitry for receiving a polling message from an inductive energy source and for transmitting a request for power message to the inductive energy source (noted coil 24 is responsive to the magnetic flux created by the charge circuit 314, since a magnetic flux is used to stimulate the battery coil and the battery pack is transmitting data to the charger due to this magnetic flux, therefore it is implicitly shown an inductive energy as a means of data transfer and energizer). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify Parks's inductive coupling system in order to transmit battery parameters to control unit as taught by Gracia so that the device can make any necessary charging adjustments.

Regarding claim 14, Garcia discloses in Figure2 and 3, the processor unit (310) is configured to draw electrical power from the battery pack (304) and responsive to

receiving an indication of inductive energy at the coil the processor unit configured to draw electrical power via the coil (208) (column 3, lines 17-52).

Regarding Claim 33, Parks discloses in Figure 2, the electrical load is a battery charger.

Regarding Claim 34, Parks in combination with Garcia disclose the power pickup coil is operatively connected to the communication unit.

Regarding Claim 35, Parks discloses wherein the electrical load is logically connected to a separate battery pack (noted that the battery charger (electrical load) is connected to the battery pack).

6. Claims 9, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parks et al. in view of Garcia and further in view of Stobbe (US 6,275,143).

Regarding claim 9, neither Parks nor Garcia discloses explicitly, the processor unit is configured to provide authentication data for inductive energy reception. However, Stobbe discloses the apparatus in which the processor unit is configured to provide authentication data for inductive energy reception (Column 6, lines 5-20). It would have been obvious to a person having ordinary skill in the art at the time of the invention to implement authentication data transfer means in Parks's inductive coupling system as taught by Stobbe in order to protect against unintentional or against unwanted battery charging.

Regarding claim 13, Stobbe discloses the processor unit is configured to provide a digital certificate to a power source (Column 6, lines 5-20).

Regarding claim 15, Stobbe discloses the antenna (52) and a communications device (22,24) configured to receive the computer readable data and configured to transmit the data to the antenna for wireless data communications to a power source (Column 5, lines 35-45).

7. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Parks in view of in view of Garcia and further in view Wendelrup et al. (US 6,291,966) (hereinafter Wendelrup)

Regarding claim 12, neither Parks nor Garcia discloses explicitly, the processor unit is configured to receive a plurality of power parameters from the battery pack; store the power parameters in a memory; and transmit the power requirements to the inductive energy power source. However, Wendelrup discloses in Figures 1 and 2, processor unit (114) is configured to receive a plurality of power parameters from the battery pack (113); store the power parameters in a memory (116); and transmit (117,106) the power requirements to the inductive energy power source (Column 4, lines 31-52). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify Parks's inductive coupling system in order to transmit battery parameter to electrical source as taught by Wendelrup to provide effective battery monitoring system.

8. Claims 16, 17, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia (US 5,963,012) in view of Gosior et al. (US 2002/0159434) (hereinafter Gosior), in view of Stephens (US 5,734,254) and in view of Poletti (US 2003/0155892).

Regarding Claim 16, Garcia discloses in Figures 2 and 3 a computer implemented method of providing battery assembly, a coil (204, 208) wirelessly receiving a polling message from a source (Column 2, lines 47-59), transmitting a request for power to the source responsive to receiving the polling message; and receiving inductive power via the coil from the source (Column 2, lines 30-59, Column 4, lines 7-41); the battery pack (304) being detachable from the battery charger assembly (302) (noted that the charger could be inductive charger in which the battery pack is separated from the charger, see column 3, lines 13-14). Garcia does not disclose the polling message including a data structure having a header and a payload; and outputting a direct current powered by the received inductive power; and supplying the direct current to a separate battery pack. However, Gosior discloses in Figure 8, data communications to the battery pack based on a polling message having a data communications to the battery pack based on a polling message having a header and a payload (Paragraphs 0122). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use a polling message that contains a payload, and a header as taught by Gosior in Garcia's inductive charger system and method in order to provide an efficient and reliable data transfer means for the charger and the device or the battery pack. Further, Stephens discloses in Figures 2 and 3, and outputting a direct current powered by the received inductive power (element 230 is outputting direct current to the device battery by converting AC to DC); and supplying the direct current to a separate battery pack (10), the battery pack being detachable from the battery charger assembly (the battery pack is physically isolated from the inductive charging source). It would have been obvious to

a person having ordinary skill in the art at the time of the invention to use an AC/DC power converter in Garcia's inductive charger as taught by Stephens in order to regulate charging current, and maintain the charger current at a desire charging point for safety purpose. However, Garcia, Gosior, and Stephens do not disclose explicitly, displaying an object on a graphical user interface indicative of the step of receiving for indicating a type of power being received. Poletti discloses in Figure 3, displaying an object on a graphical user interface (22) indicative of the step of receiving for indicating a type of power being received (see Paragraph 0031). It would have been obvious to a person having ordinary skill in the art at the time of the invention to use a display with Garcia's apparatus as taught by Poletti in order to visualized the type of charging and charging steps, and monitoring the charging process.

Regarding claims 17 and 21, Garcia discloses the step of transmitting includes a step of transmitting power parameters to the source (column 2, lines47-59).

9. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia in view of Gosior, in view of Stephens (US 5,963,012) and in view of Poletti (US 2003/0155892) as applied to claim 16 above, and further in view of Stobbe (US 6,275,143).

Regarding claim 18, Garcia, Gosior. Stephens and Poletti do not disclose explicitly, the step of transmitting includes a step of transmitting authenticating data to the source. However, Stobbe discloses the step of transmitting includes a step of transmitting authenticating data to the source (Column 6, lines 5-20). It would have been obvious to a person having ordinary skill in the art at the time of the invention to

implement authentication data transfer means in Garcia 's wireless battery charging system as taught by Stobbe in order to protect against unintentional or unwanted battery charging.

10. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia in view of Gosior, in view of Stephens and in view of Poletti as applied to claim 16 above, and further in view of Parks (US 5,455,466).

Regarding claim 19, Garcia, Gosior, Stephens and Poletti do not disclose explicitly, a step of initiating a step of converting the inductive power to a direct current responsive to the step of receiving. However, Parks discloses in Figure 1, a step of initiating a step of converting the inductive power to a direct current responsive to the step of receiving (Column 2, lines 35-50). It would have been obvious to a person having ordinary skill in the art at the time of the invention to add a charging rectifier circuit in Garcia 's wireless battery charging system as taught by Parks in order to supply direct current appropriate for charging the battery pack.

11. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia in view of Gosior, in view of Stephens and in view of Poletti as applied to claim 16 above, and further in view of Wendelrup.

Regarding Claim 20, Garcia, Gosior, Stephens and Poletti do not disclose explicitly, step of receiving power parameters from battery pack and storing the power parameters in a computer readable memory. However, Wendelrup discloses step of receiving power parameters from battery pack (113) and storing the power parameters in a computer readable memory (116). It would have been obvious to a person having

ordinary skill in the art at the time of the invention to add a computer data storage element as taught by Wendelrup . in Garcia's device in order to monitor battery status.

12. Claims 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parks in view of Garcia, and further in view of Gosior (US 2002/0159434) (hereinafter Gosior).

Regarding Claim 28, neither Parks nor Garcia discloses explicitly, the inductive data communication includes a polling message including a header and a payload. Gosior discloses, the inductive data communication includes a polling message including a header and a payload. It would have been obvious to a person having ordinary skill in the art at the time of the invention to use a polling message that contains a payload, and a header as taught by Gosior in Parks's adaptive charger system and method in order to provide an efficient and reliable data transfer means for the charger and the device or the battery pack.

Regarding Claim 29, Gosior in combination with Garcia disclose, wherein the payload includes at least one of an operating parameter and authentication information (Voltage and temperature of the battery).

Regarding Claim 30, Gosior in combination with Garcia disclose, wherein the payload contains specific data relevant to power consumption (Paragraphs 0033)

Regarding Claim 31, Gosior in combination with Garcia disclose, wherein the operating parameter corresponds to a charging voltage or a maximum expected power consumption.

Response to Arguments

13. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection, or not persuasive.

Applicant's argument with respect to Claim 8 is irrelevant since the Claim is cancelled.

Applicant argues that the polling is done by the inductive source wherein the inductive energy is turned on or off. This is also irrelevant because the limitations are not in the claim.

In response to applicant's argument that the polling of Garcia is not periodic, applicant is respectfully advised that the limitation, "Periodic" not in the claim therefore the argument is invalid.

14. In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

Conclusion

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel Berhanu whose telephone number is 571-272-8430. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SB


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